**Region 3 GPRA Baseline RCRA Corrective Action Facility**

# Akzo Nobel Chemicals, Inc.

**1835 Schoolhouse Road**
**Delaware City, DE 19706**
**Congressional District 1**
**EPA ID #: DED980551667**
**Last Updated 6/29/05**

## Current Progress at the Site

The Phase I RCRA Facility Investigation was completed between January and June 1999. The scope of the Phase I RFI included the characterization of the soil quality at several locations throughout the Carbon Disulfide manufacturing plant (includes the areas of the site described below in the Site Description Section), and an evaluation of the site-wide hydrogeologic conditions.

The RFI Phase II field investigation was implemented in May of 2001. The Phase II RFI investigation consisted of confirmatory soil sampling in the Carbon Disulfide manufacturing plant and site wide groundwater quality investigation east of the groundwater divide beneath the agricultural parcel. A second round of groundwater samples were collected the week of November 17, 2001 to evaluate possible seasonal variation. The RFI Phase II Report was approved on May 5, 2003. Interim measure cap design proposal for the Barren and Capped Landfill Areas is in it's final stages of review and comment. The sampling for tetrachloroethylene (PCE) in the Carbon Disulfide manufacturing plant area was conducted in March of 2003. The results of the March 2003 sampling show the need for further delineation of PCE plume. The sampling is scheduled to take place soon.

On May 25, 2001, EPA determined that the Human Exposures Environmental Indicator has been met. The Groundwater Under Control Environmental Indicator was evaluated based on the findings of additional sampling for PCE tentatively scheduled for late 2004. It was determined that additional PCE data should be collected to more definitively determine the extent of off-site PCE contaminant plume. The Groundwater Under Control Environmental Indicator will be re-evaluated based upon the findings of the additional PCE data (tentatively scheduled to be collected in the summer of 2005) and the effectiveness of the interim measures (capping of the Barren and Capped Landfill Areas).

## Site Description

The Akzo Nobel Chemicals, Inc. (Akzo) site is located in Delaware City, Delaware, 2.5 miles northwest of Delaware City in New Castle County Delaware. The property is bordered on the west by Route 14, on the north by the Conrail Railroad tracks, on the east by Schoolhouse Road, and on the south by Formosa Plastics, American Mirrex and Route 72 Wrangle Hill Road. The Akzo site consists of a decommissioned Carbon Disulfide manufacturing plant (including closed-loop process units, wastewater treatment system, storage and loading areas and underground storage tanks for gasoline and an unknown substance, two land disposal areas; Barren Area and Capped Landfill, and two small wetland areas), situated on a 52 acre area; a 123 acre Agricultural Parcel; and a 16 acre undeveloped parcel. The plant generated carbon disulfide and sodium hydrosulfide. Sodium hydrosulfide and waste oil were the only documented hazardous waste constituents stored in the drum storage area. Off-specification sulfur and ceramic brick debris are the known materials disposed of in the Barren Area and the Capped Landfill.

The plan was constructed and began operation in 1960 under the original ownership of the Stauffer Chemical Company (Stauffer). Akzo acquired the site from Stauffer on or about December 21, 1987 and continued to operate it until 1992, when the facility was dismantled and closed under the supervision of the Department of Natural Resources and Environmental Control (DNREC).

# Site Responsibility

RCRA Corrective Action activities at the Akzo facility are being conducted under the direction EPA in partnership with DNREC. The investigation and any necessary clean up activities are being implemented in accordance with the federal Corrective Action Order that was entered on December 30, 1994 and became effective on July 25, 1995.

# Contaminants

The monitoring results of the PVC containment system identify volatile organic compounds (ethylene dichloride, vinyl chloride monomer and trichloroethylene) as the contaminants of concern in groundwater. Under the previous ownership of Stauffer, in 1990, PVC resin material and resin contaminated soil were excavated under the PVC project (ROD 9/30/86) from the adjacent property and on the border of the Barren area of the Akzo Facility. Analytical results from the Phase I RFI investigation identify that a small amount of Resin material was detected in one sample location toward the center of the Barren area. The sample was collected at a depth of 3 to 5 feet. Potential contaminants of concern in the soil within the plant area are 1,2-dichloroethane, trichloroethylene, tertachloroethene, pentachlorophenol, benezo(a)pyrene, benzo(b)flouranthene, dibenzo(a,h)anthracene and hexavalent chromium. The findings of the RFI Phase II confirmatory soil sampling of the Carbon Disulfide manufacturing plant area presented in the draft RFI Phase II Report indicated that: benzo(a)pyrene, PCB(Arochlor 1260), barium, chromium, copper, iron, lead, manganese, nickel, and zinc are contaminants of concern in the sediment sample collected. Based on the groundwater quality sample results form the RFI Phase II investigation, metals (arsenic, nickel, beryllium, chromium hexavalent, and manganese) and chlorinated volatile compounds (vinyl chloride, 1,2-dichloroethane,1,2-dicholoropropane, trichloroethylene, and tetrachloroethene) are contaminants of concern in the groundwater for this facility.

# Community Interaction

The facility is located in a predominantly industrial area.

# Institutional Controls

# Government Contact

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For more information about EPA's corrective action web page, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm